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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,374	03/26/2004	Robert H. Bush	EH-11234 (04-224)	2083

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BACHMAN & LAPOINTE, P.C.
900 CHAPEL STREET
SUITE 1201
NEW HAVEN, CT 06510

EXAMINER

RODRIGUEZ, WILLIAM H

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/811,374	Applicant(s) BUSH ET AL.	
	Examiner William H. Rodriguez	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12, 13, 15, 16 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 14, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment and remarks filed 5/4/05. Since the examiner has applied new grounds of rejection, this office action is being made non-final to afford the applicant the opportunity to respond to the new grounds of rejection.

Claim Objections

1. Claims 19 and 22 are objected to because of the following informalities:

Claim 19 recites the limitation "said gaps" in line 9. This recitation should be replaced by --said gap-- to maintain consistency with the positively recited structural limitation "a gap" in line 7. Appropriate correction is required.

Claim 22 recites the limitation "said opening step" in line 2. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

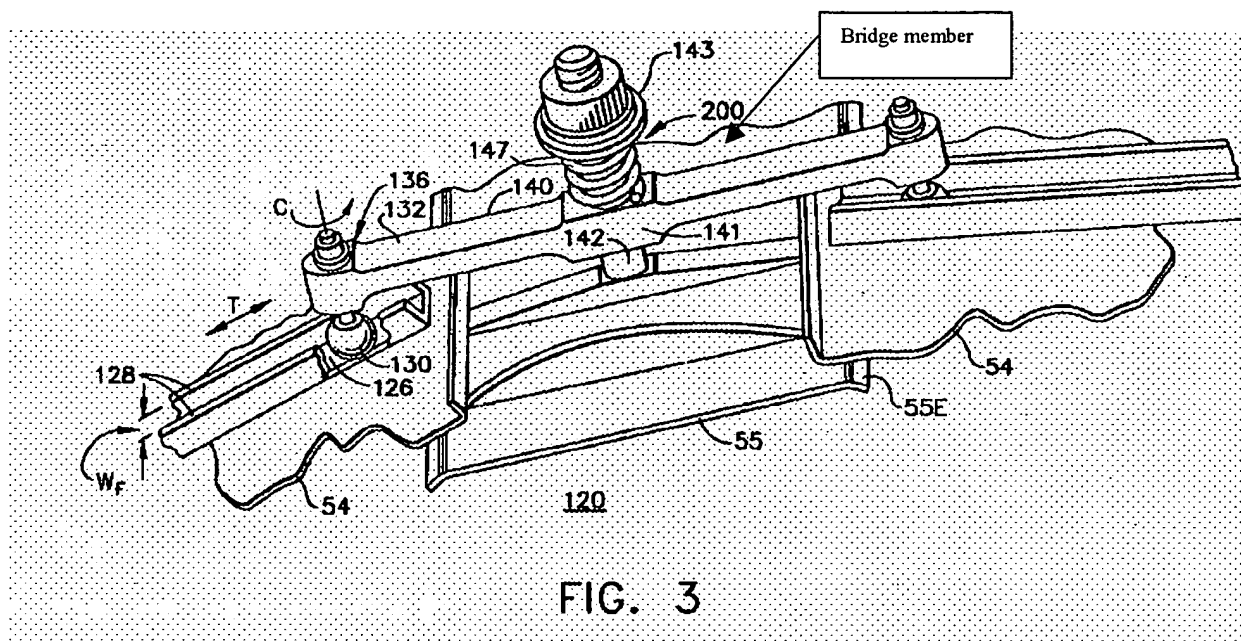
Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12, 13, 15, 16 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by **Ausdenmoore et al. (US 5,484,105)**.



With respect to claim 12, **Ausdenmoore** teaches a method for tailoring an exhaust plume of an engine, said method comprising the steps of: providing an engine (first 3 lines of abstract) with a nozzle 14 having movable flaps 54 which create a divergent zone; providing a bridge member between adjacent ones of said flaps 54; operating said engine and said flaps 54 so as to create an overexpanded condition (column 7 lines 22-44) within said nozzle 14; and positioning said flaps 54 so as to tailor an exhaust plume from said nozzle 14 to have a flow evenly distributed circumferentially (flow is evenly distributed when the nozzle is unvectored, see Figure 2). See particularly **Figures 2, 3**; and column 7 lines 22-44 of **Ausdenmoore**.

With respect to claim 13, **Ausdenmoore** teaches that said flap positioning step comprises moving adjacent ones of said flaps 54 relative to said bridge member so as to create slots 106 which allow ambient air to flow into said exhaust nozzle (column 7 lines 22-29).

With respect to claim 15, **Ausdenmoore** teaches that said flap positioning step comprises positioning said flaps 54 so that gaps 106 (column 7 lines 22-29) are created between adjacent ones of said flaps which occupy from 3% to 30% of a surface area of said nozzle. Figure 2

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appears to show that the gaps 106 created between adjacent ones of said flaps 54 occupy a surface area of said nozzle within the range being claimed.

With respect to claim 16, **Ausdenmoore** teaches that said flap positioning step comprises positioning said flaps 54 so that gaps 106 (column 7 lines 22-29) are created between adjacent ones of said flaps 54 which occupy from 8% to 12% to a surface area of said nozzle. Figure 2 appears to show that the gaps 106 created between adjacent ones of said flaps 54 occupy a surface area of said nozzle within the range being claimed.

With respect to claim 19, **Ausdenmoore** teaches a method for increasing the thrust produced by an axial divergent section slot nozzle 14 comprising the steps of: providing a nozzle 14 having a plurality of spaced apart divergent flaps 54; providing a plurality of bridge members having sealing elements 55 which close a gap 106 between adjacent ones of said divergent flaps 54; and operating said gaps 106 by operating said nozzle 14 in an overexpanded condition and thereby creating a pressure gradient which allows ambient air surrounding said nozzle 14 to flow into said nozzle. See particularly **Figures 2, 3**; and column 7 lines 22-44 of **Ausdenmoore**.

With respect to claim 20, **Ausdenmoore** teaches that said bridge member providing step comprises providing a plurality of bridge members each having a sealing element 55 which contacts a gas side of a pair of said flaps and a bridge bracket 132 positioned joined to said sealing element 55 on an air side of said flaps. See particularly **Figures 2, 3** of **Ausdenmoore**.

With respect to claim 21, **Ausdenmoore** teaches that said bridge providing step further comprises providing a bridge bracket 132 shaped to allow variable slot size 106 (column 7 lines 40-44) depending on nozzle throat jet area.

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With respect to claim 22, **Ausdenmoore** teaches that the opening step comprises creating a pressure differential which causes each said sealing element to lose contact with said adjacent ones of said divergent flaps. See column 7 lines 22-29.

Allowable Subject Matter

4. Claims 1-11 are allowed.
5. Claims 14, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 12, 13, 15, 16 and 19-22 have been considered but are moot in view of the new ground(s) of rejection. See detail rejection above.

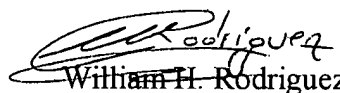
Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 571-272-4831. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 7/22/05
William H. Rodriguez
Examiner
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